

Station Description Sheet

PRR

1. General Information
2. Geographical Information / Geomorphology
3. Geological Information
4. Geotechnical Site Characterization
5. Geophysical Site Characterization
6. Site Response
7. References

1. GENERAL INFORMATION



Photo 1: PRR shelter

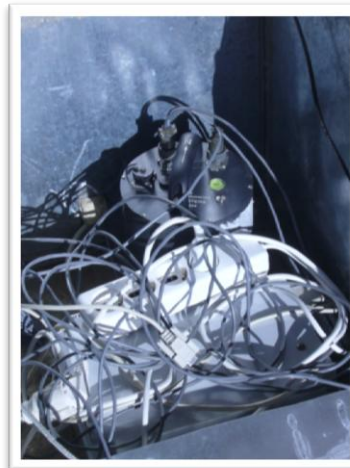


Photo 2: Inside of the PRR installation box

Station Code: PRR

Network: Euroseis

Instrumentation: Check the up-to-date EUROSEISTEST stations history file at <http://euroseisdb.civil.auth.gr/stations>

Power supply: AC

Housing: in a small aluminum industry in Profitis village

2. GEOGRAPHICAL INFORMATION / GEOMORPHOLOGY



Figure 1: Location map of PRR station

Location: in the Mygdonian basin, in Profitis village

Elevation (from sea level): 87 m

Station coordinates: 23.278650°E / 40.682635°N

Projection system: WGS84

Site morphology: Valley edge (north edge of the valley)

3. GEOLOGICAL INFORMATION

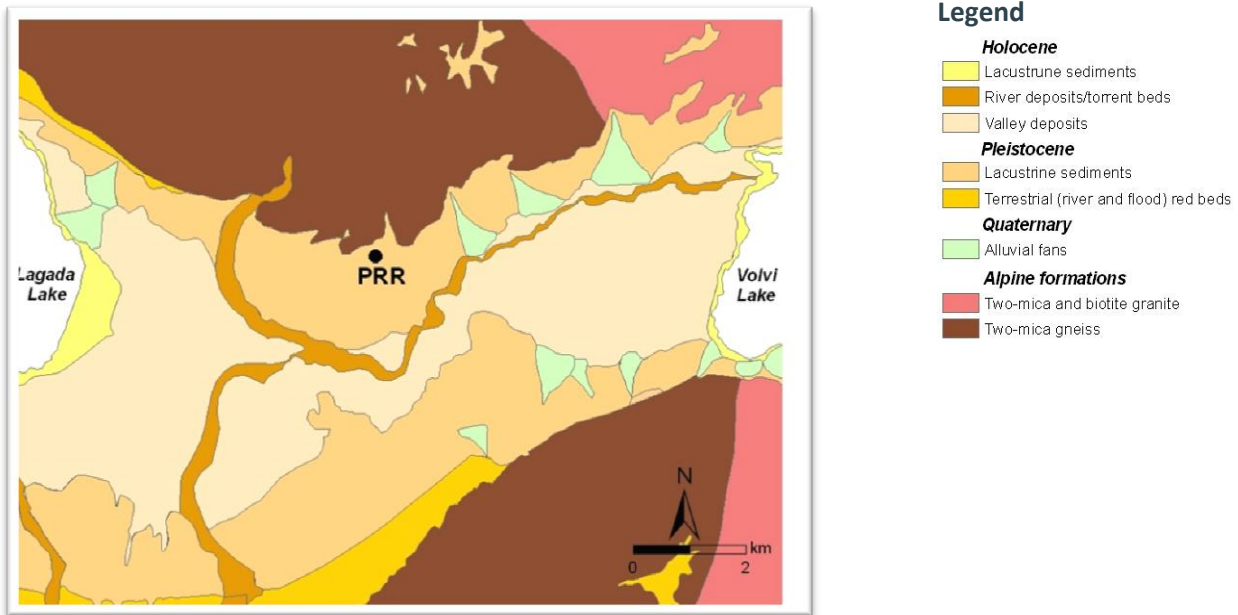


Figure 2: Geological map of the central Mygdonian basin

Surface geology (from geological map): on Pleistocene lacustrine sediments

Reference for geological map: Geological map of Greece - Scale 1:50000, Map Sheets of "Thermi" and "Zagliverion", (IGME, 1978)

Boreholes (with core description) in the proximity of the station: not known

4. GEOTECHNICAL SITE CHARACTERIZATION

Geotechnical site characterization data for station PRR include:

1. Sampling borehole (EUROSEISTEST Project Reports, 1993-1995).
2. Cone penetration test (EUROSEISRISK project reports, 2002 – 2005).
3. Laboratory tests (G- γ -D curves, etc.) (EUROSEISTEST Project Reports, 1993-1995).

Data are available in ascii format in:

http://euroseisdb.civil.auth.gr/uploads/station/geotechnical/12/Site_characterization_geotechnical_PRR.txt

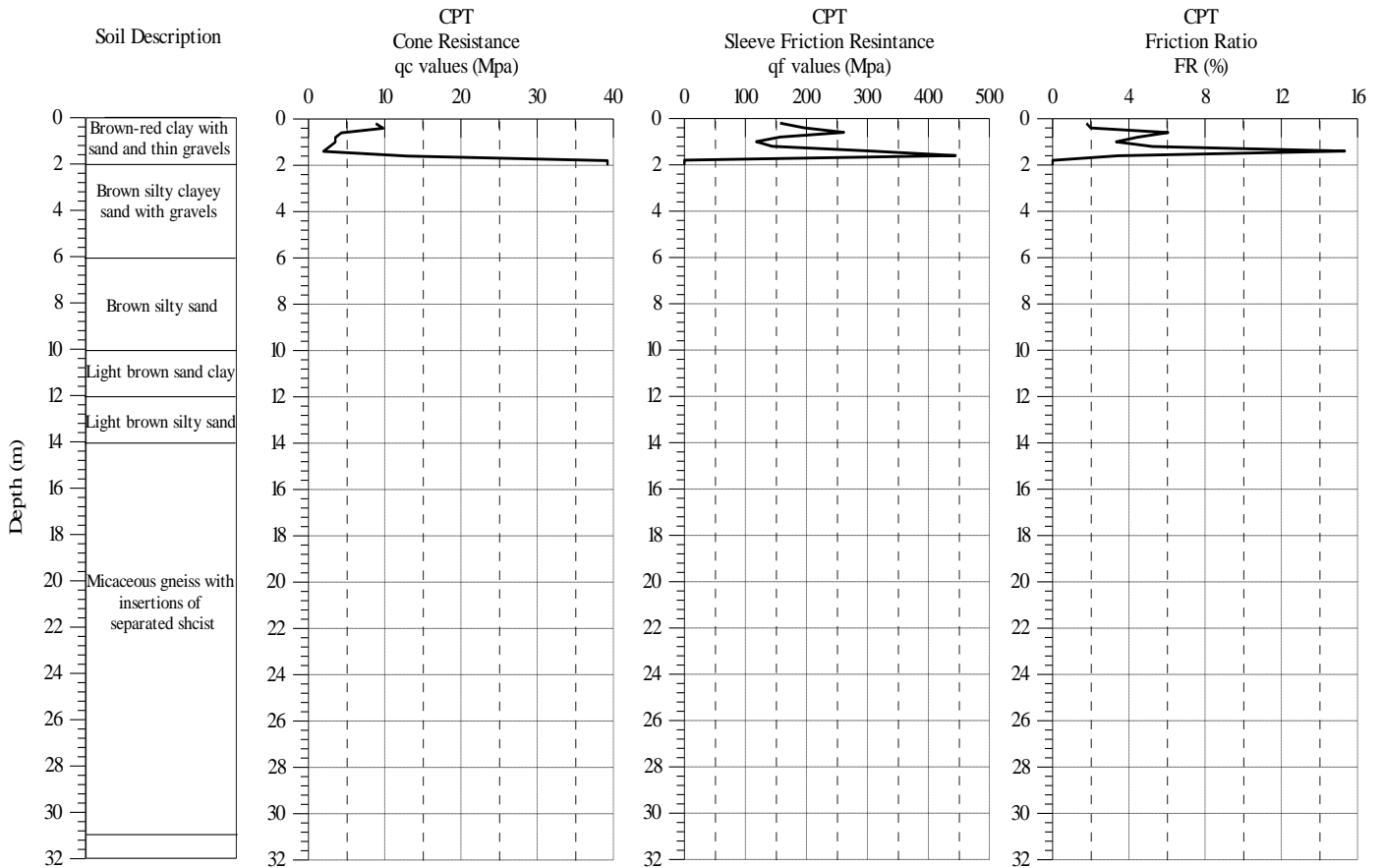


Figure 3: Geotechnical data at station PRR

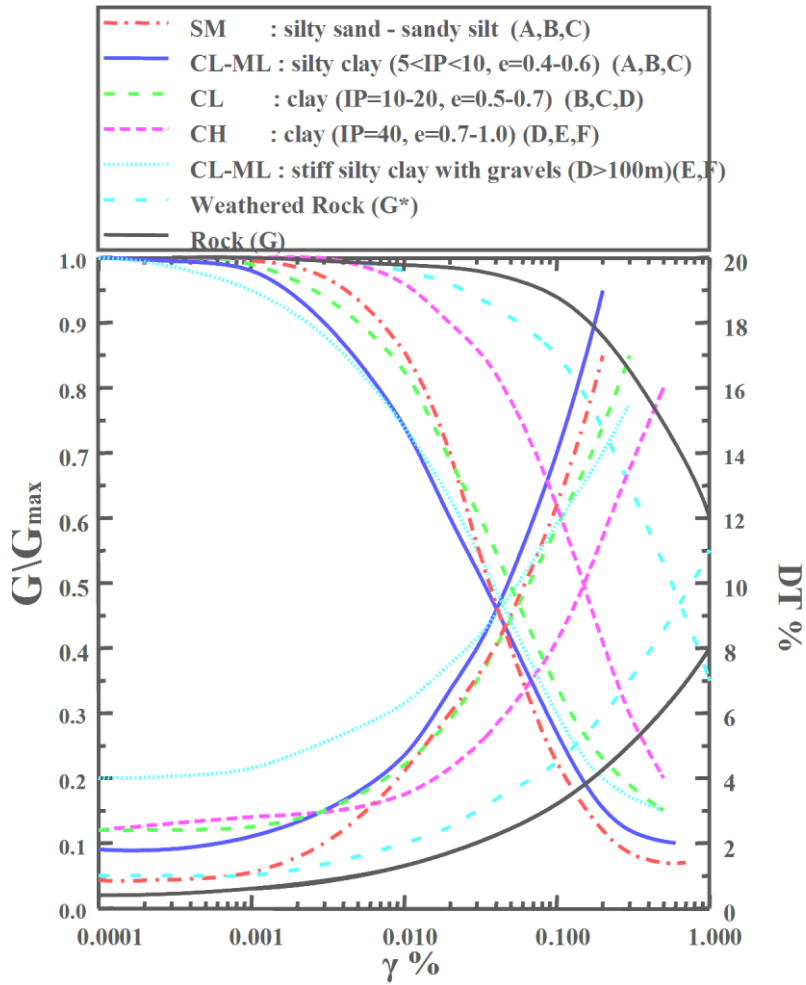


Figure 4: Mean G/G_0 - γ - D curves from resonant column and cyclic triaxial tests for all geotechnical formations occur at station PRR. The curves describe the shear modulus degradation with the shear strain and the respective internal damping increase.

5. GEOPHYSICAL SITE CHARACTERIZATION

Geophysical site characterization data for station PRR include:

1. Shear wave velocity values (V_s) / determined by Surface Wave Inversion method (Raptakis et al., 2000).
2. Compression wave velocity values (V_p) / determined by Surface Wave Inversion method (Raptakis et al., 2000).

Data are available in ascii format in:

http://euroseisdb.civil.auth.gr/uploads/station/geophysical/12/Site_characterization_geophysical_PRR.txt

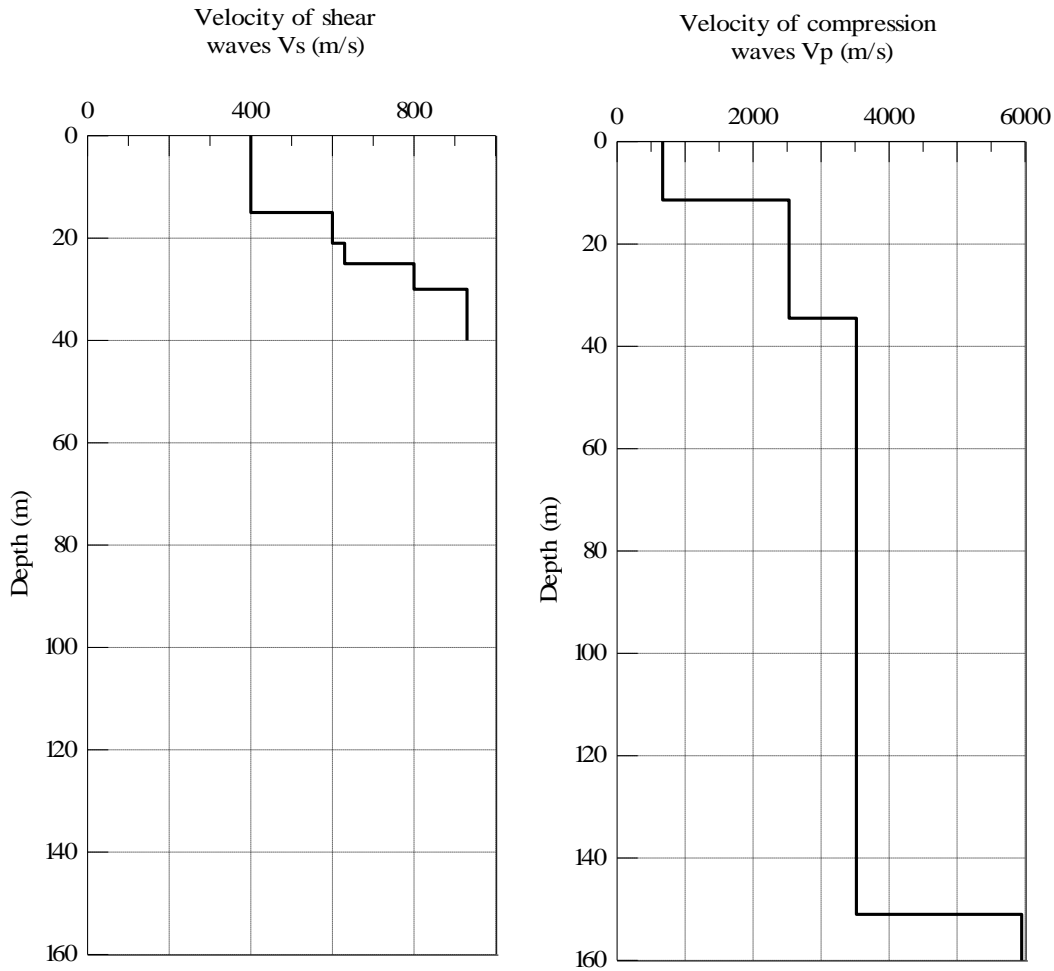


Figure 5: Shear and compression wave velocity values at station PRR.

6. SITE RESPONSE

Site response data for station PRR include:

1. Horizontal-to-vertical spectral ratios (HVSr) / applied on single station noise measurements (Raptakis et al., 2005)

Data are available in ascii format in:

http://euroseisdb.civil.auth.gr/uploads/station/response/12/Site_response_PRR.txt

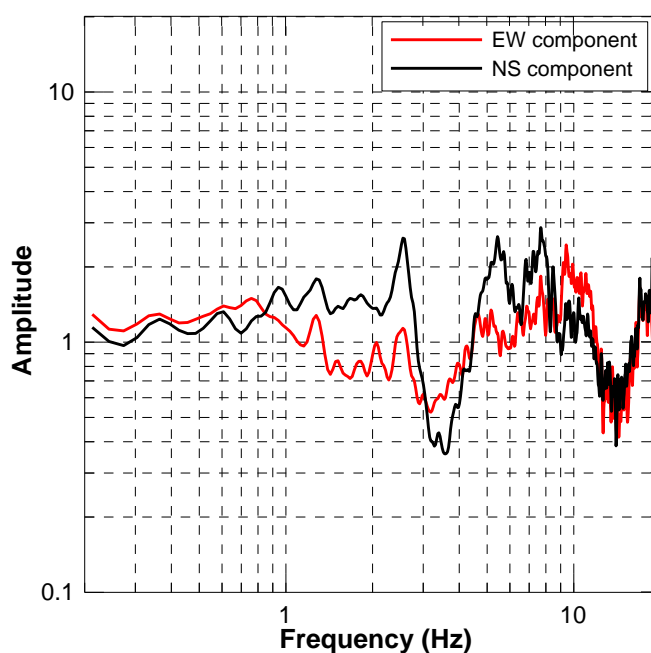


Figure 6: Horizontal-to-Vertical Spectral Ratios (HVSr) for the two horizontal components at station PRR. Ratios are based on single station noise measurements

7. REFERENCES

- EUROSEISTEST Project Reports, 1993–1995. (*Available in PDF upon request*)
 EUROSEISRISK Project Reports, 2002–2005. (*Available in PDF upon request*)
 IGME, 1978. Geological map of Greece - Scale 1:50.000. Map Sheets of "Thermi" and "Zagliverion".
 Raptakis D., F.J. Chávez-García, K. Makra and K. Pitilakis, 2000. Site effects at Euroseistest Part I. Determination of the valley structure and confrontation of observations with 1D analysis, *Soil Dynamics and Earthquake Engineering*, Vol. 19, pp. 1-22.
 Raptakis D., M. Manakou, F.-J. Chavez-Garcia, K. Makra and K. Pitilakis, 2005. 3D configuration of Mygdonian basin and preliminary estimate of its site response. *Soil Dynamics and Earthquake Engineering*, Vol. 25, pp. 871-887.